

FIG. 2

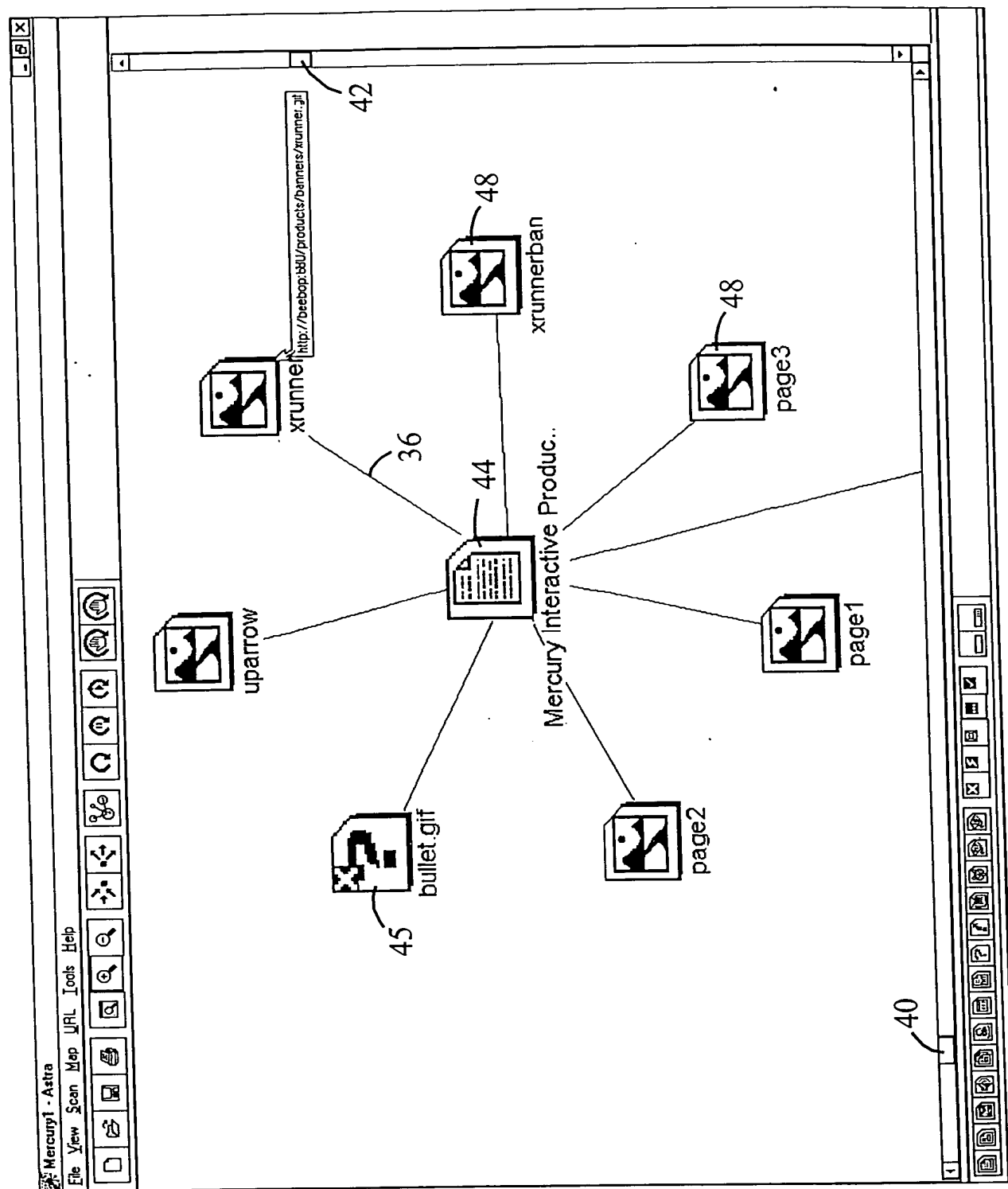


FIG. 3

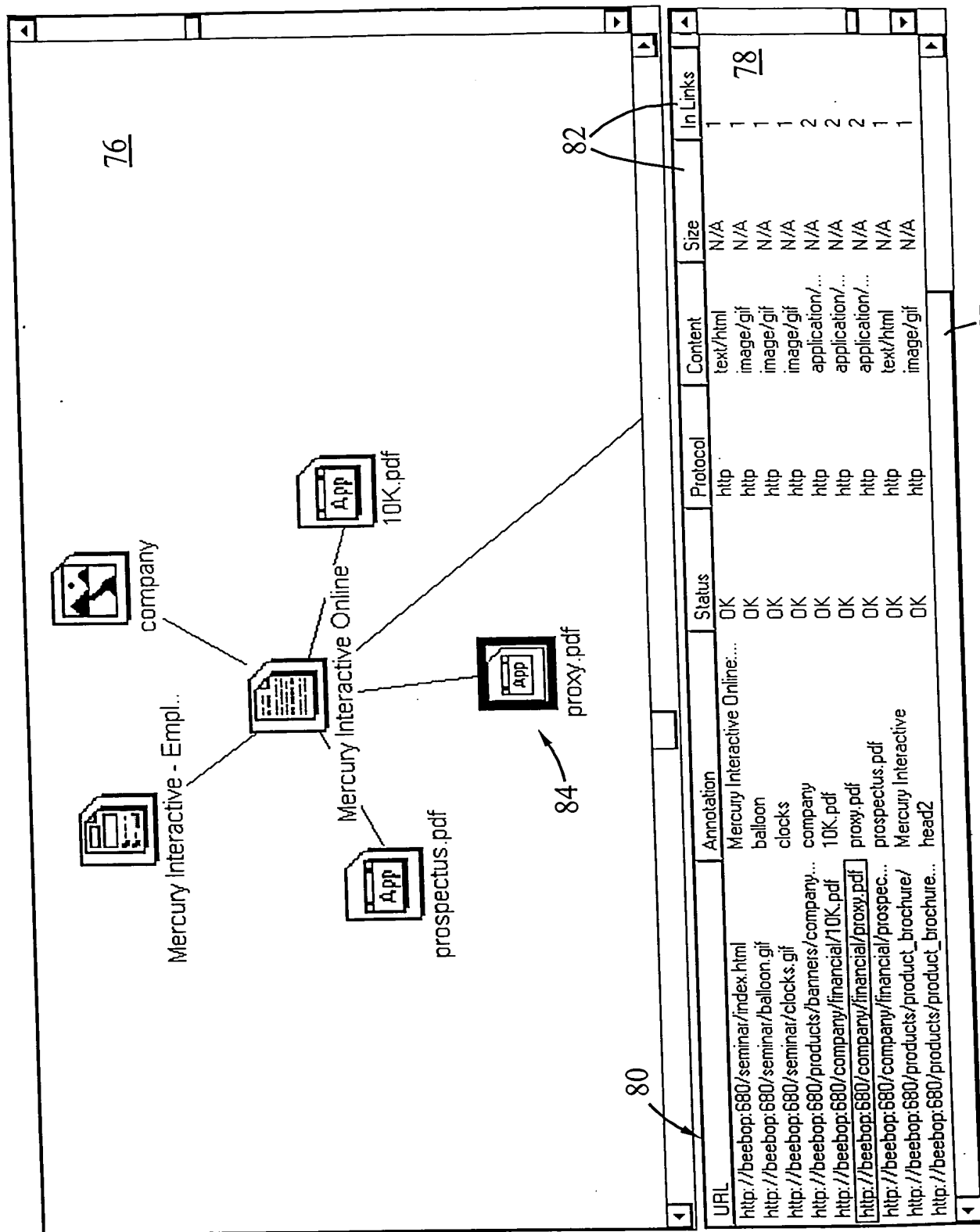


FIG. 4

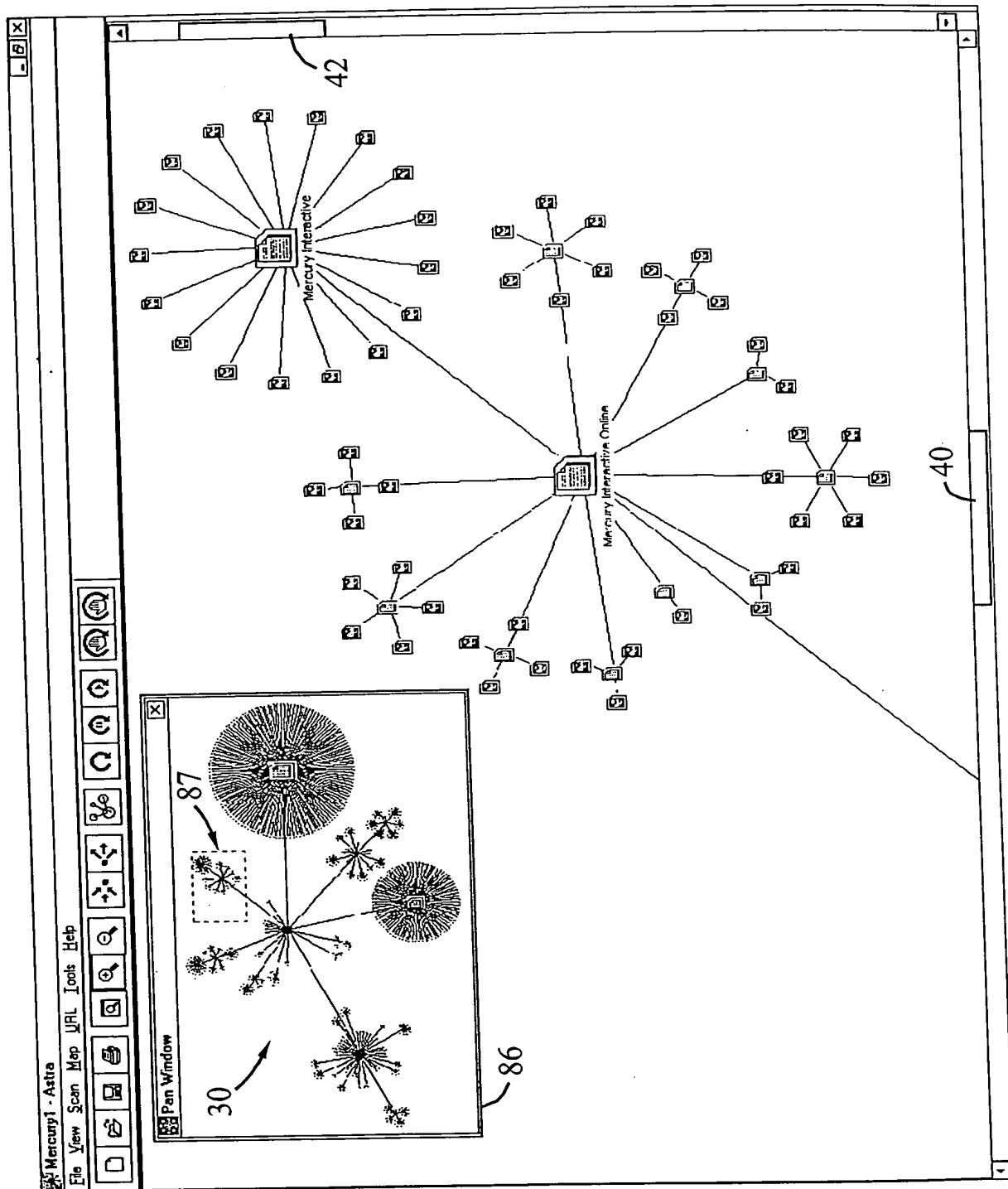


FIG. 5

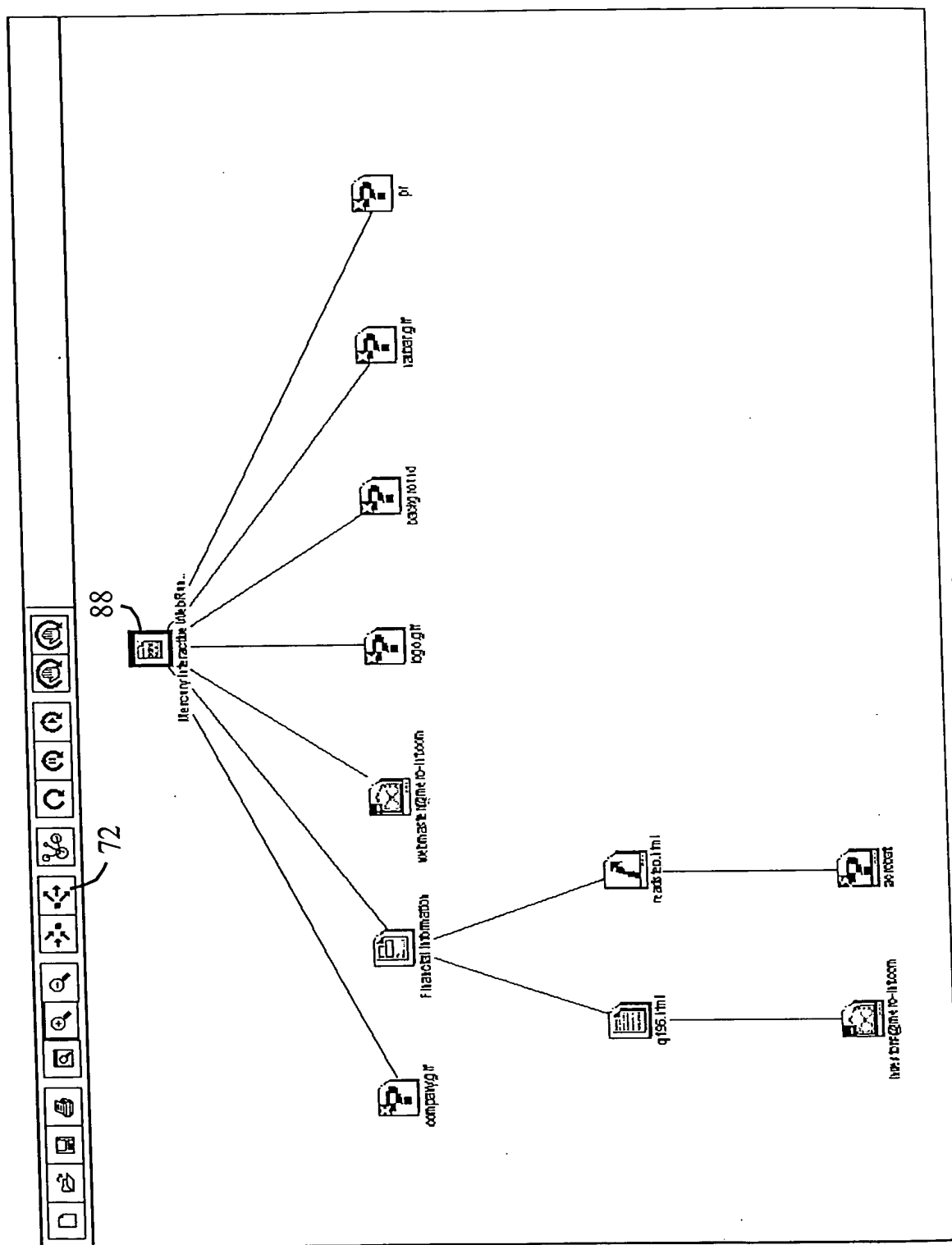
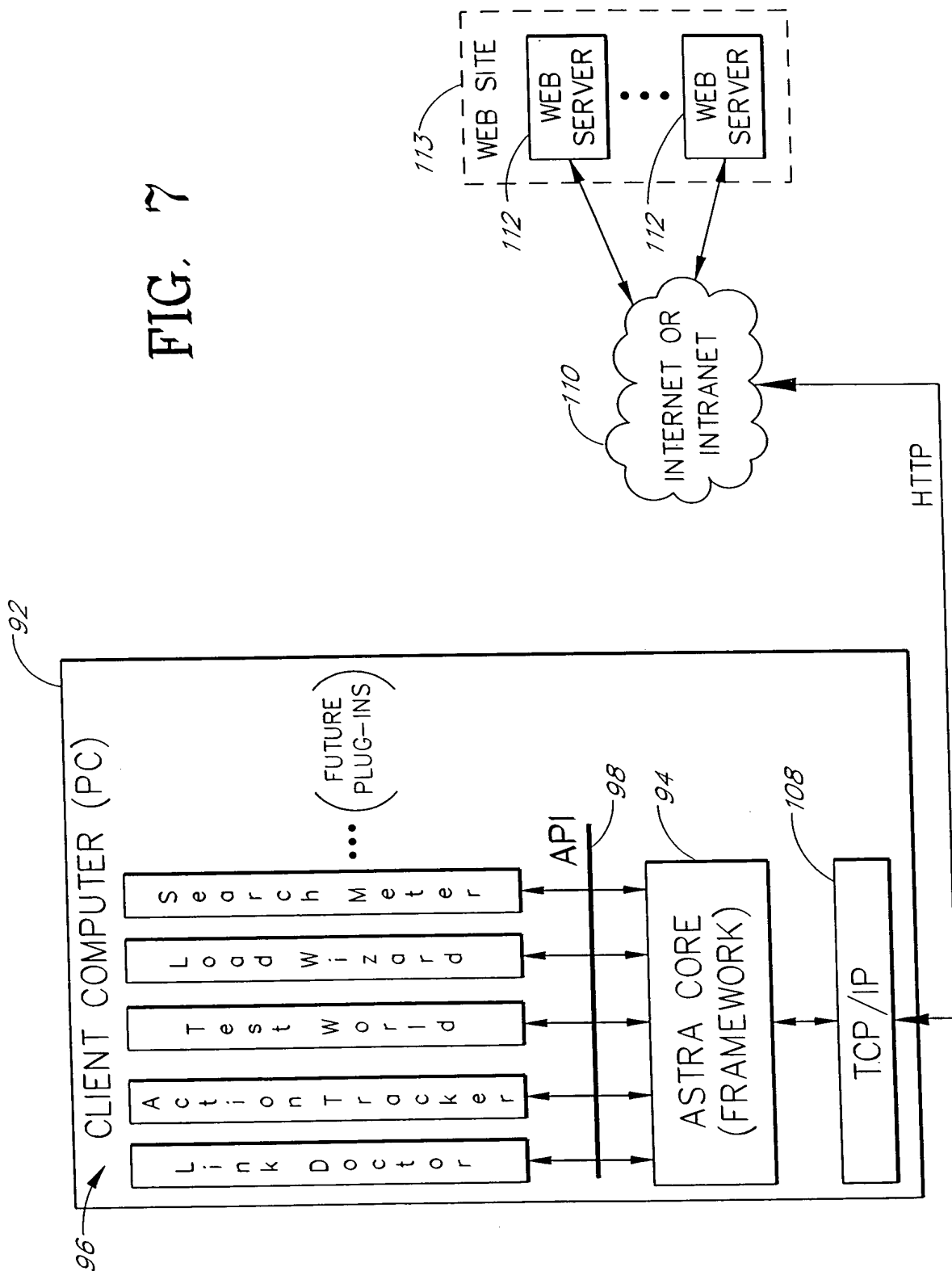


FIG. 6



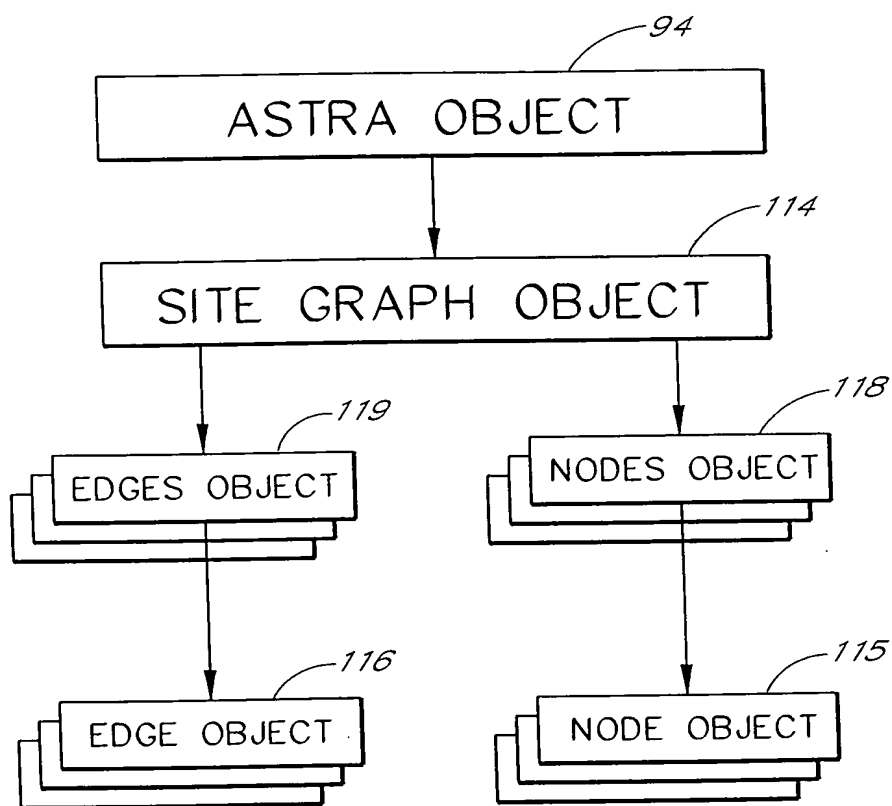


FIG. 8

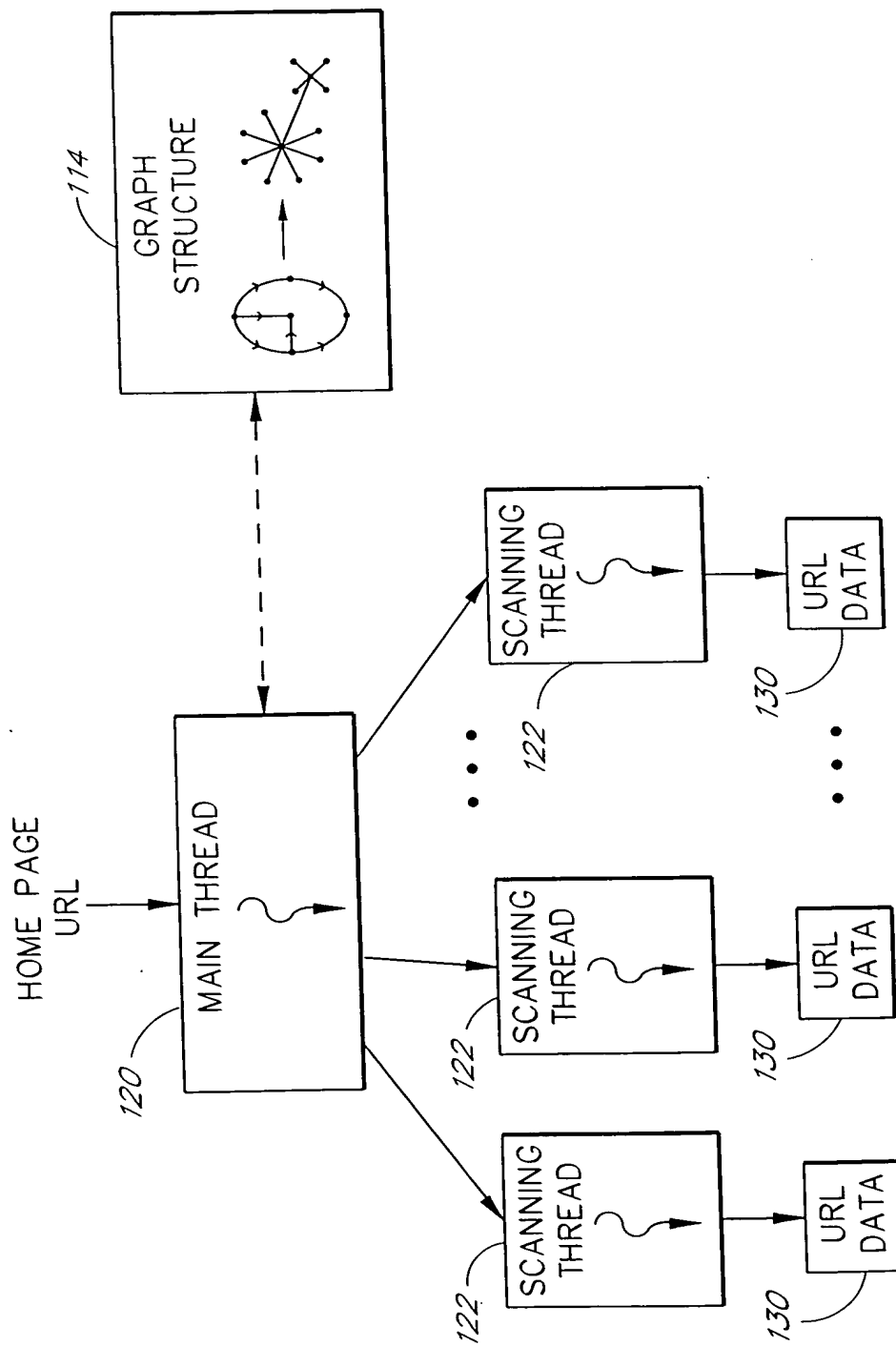


FIG. 9

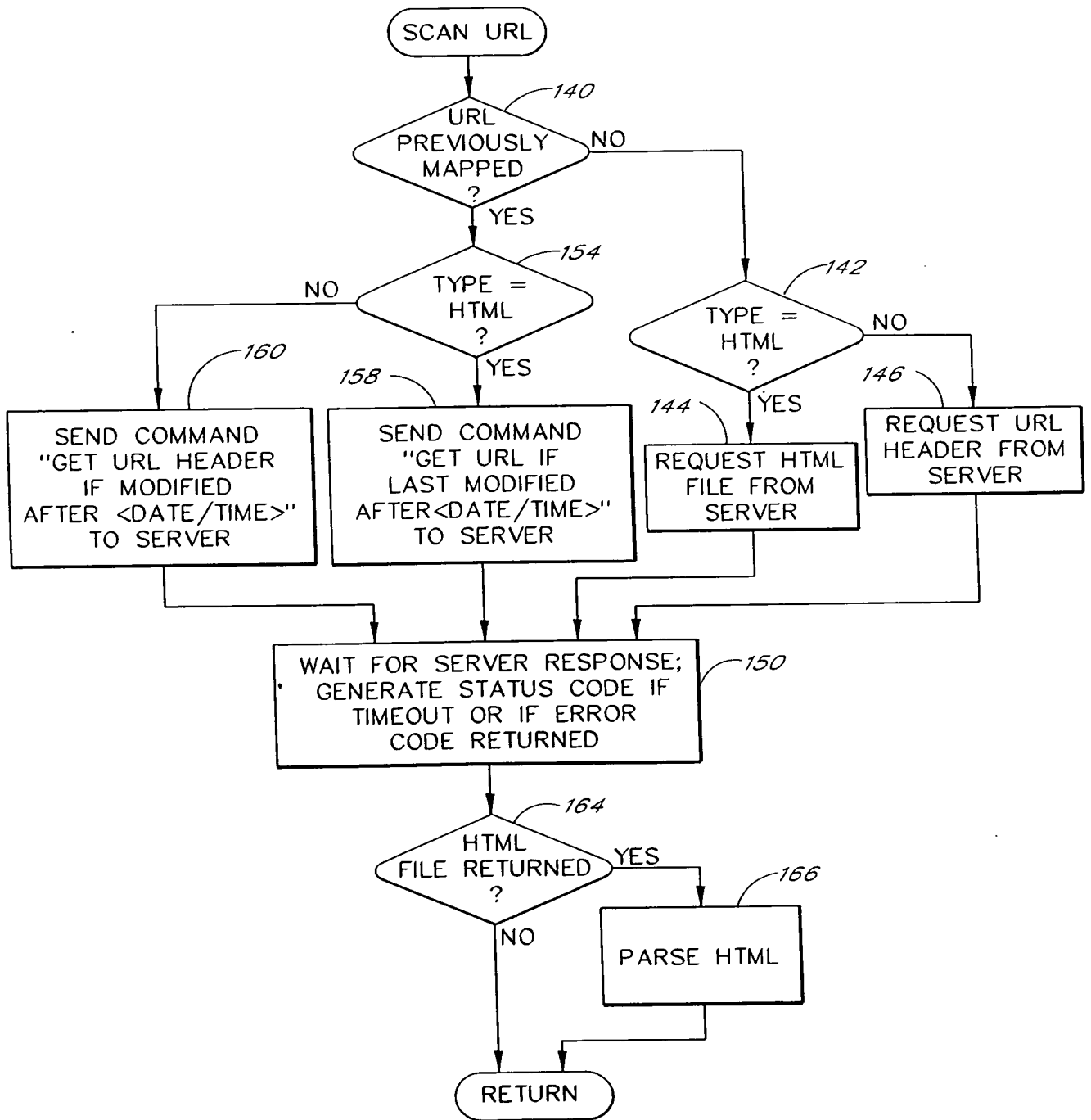


FIG. 10

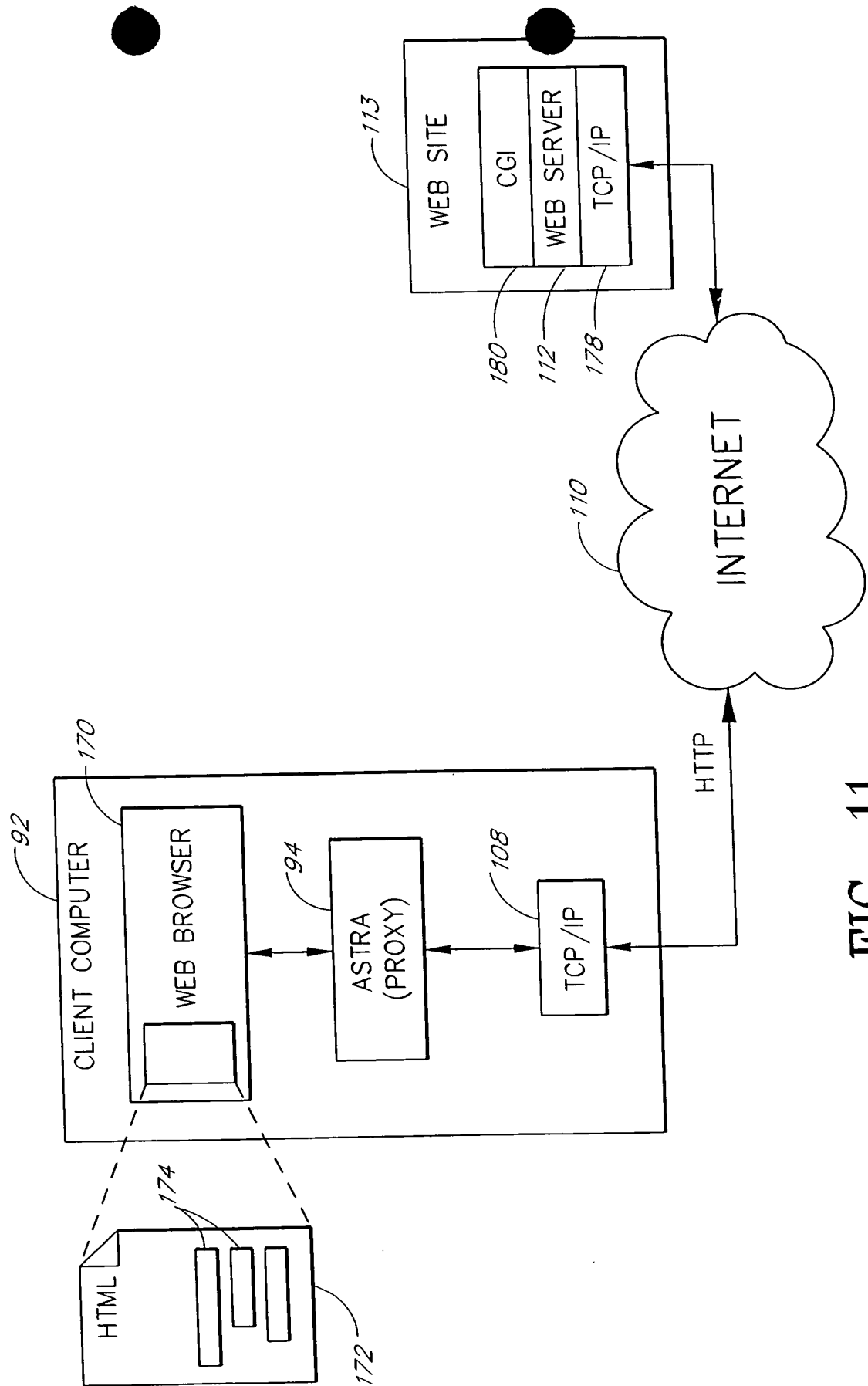


FIG. 11

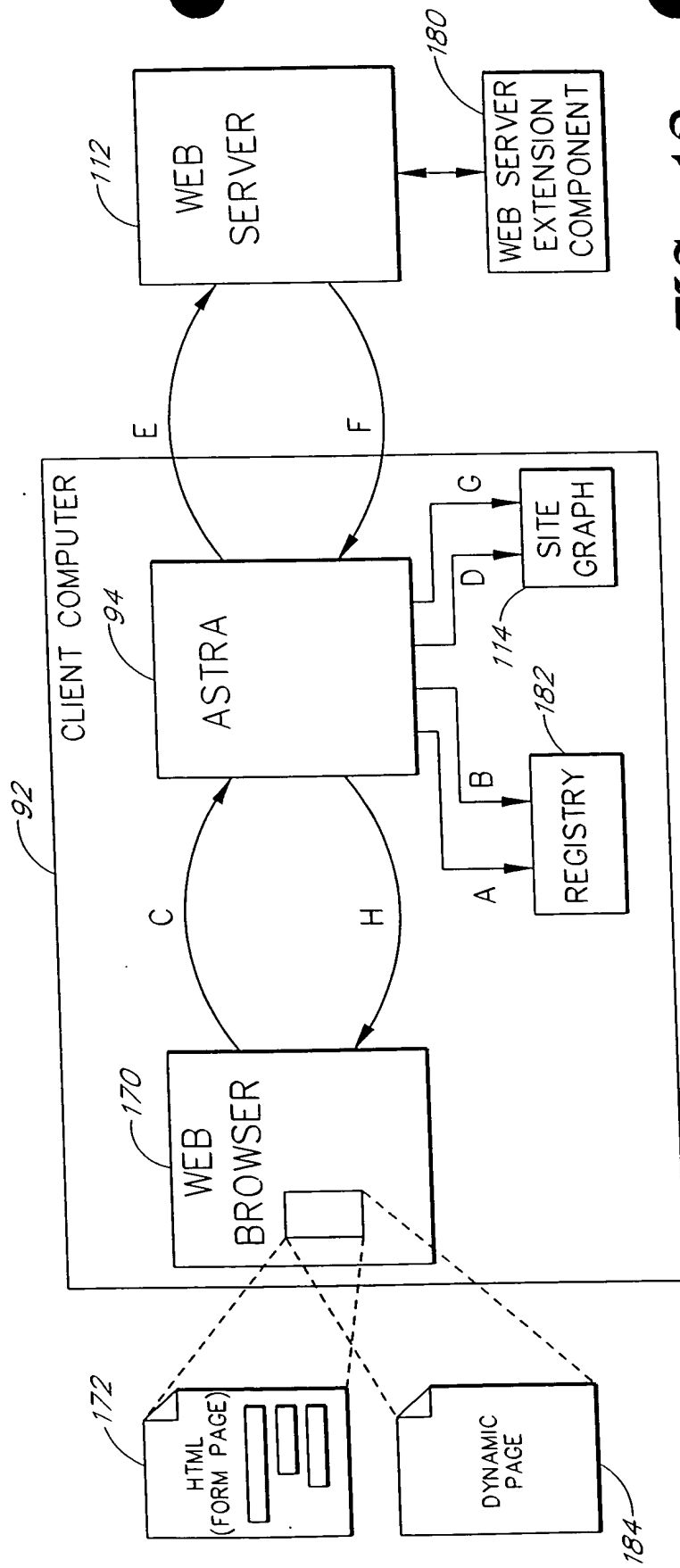


FIG. 12

- A. ASTRA MODIFIES BROWSER CONFIGURATION IN REGISTRY TO SET ASTRA AS PROXY
- B. ASTRA LAUNCHES BROWSER, AND THEN RESTORES ORIGINAL BROWSER CONFIGURATION WITHIN REGISTRY
- C. BROWSER PASSES HTTP MESSAGE TO ASTRA IN RESPONSE TO SUBMISSION OF FORM
- D. ASTRA EXTRACTS DATA SET AND STORES IN SITE GRAPH FOR FUTURE USE
- E. ASTRA FORWARDS HTTP MESSAGE TO WEB SERVER
- F. WEB SERVER RETURNS DYNAMICALLY-GENERATED WEB PAGE
- G. WEB SERVER PARSES DYNAMICALLY-GENERATED PAGE AND UPDATES SITE GRAPH
- H. ASTRA FORWARDS PAGE TO BROWSER TO CREATE IMPRESSION OF REGULAR BROWSING

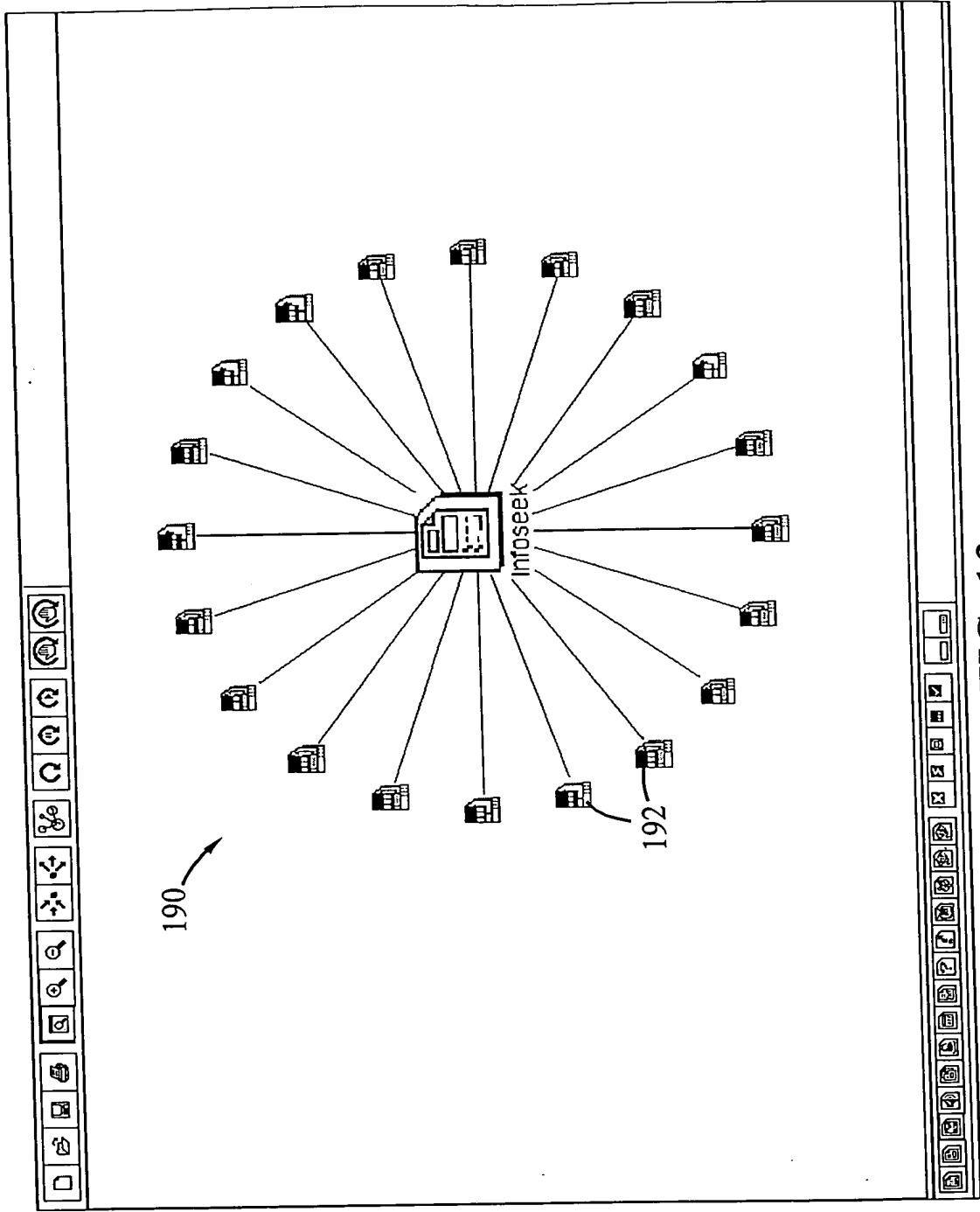


FIG. 13

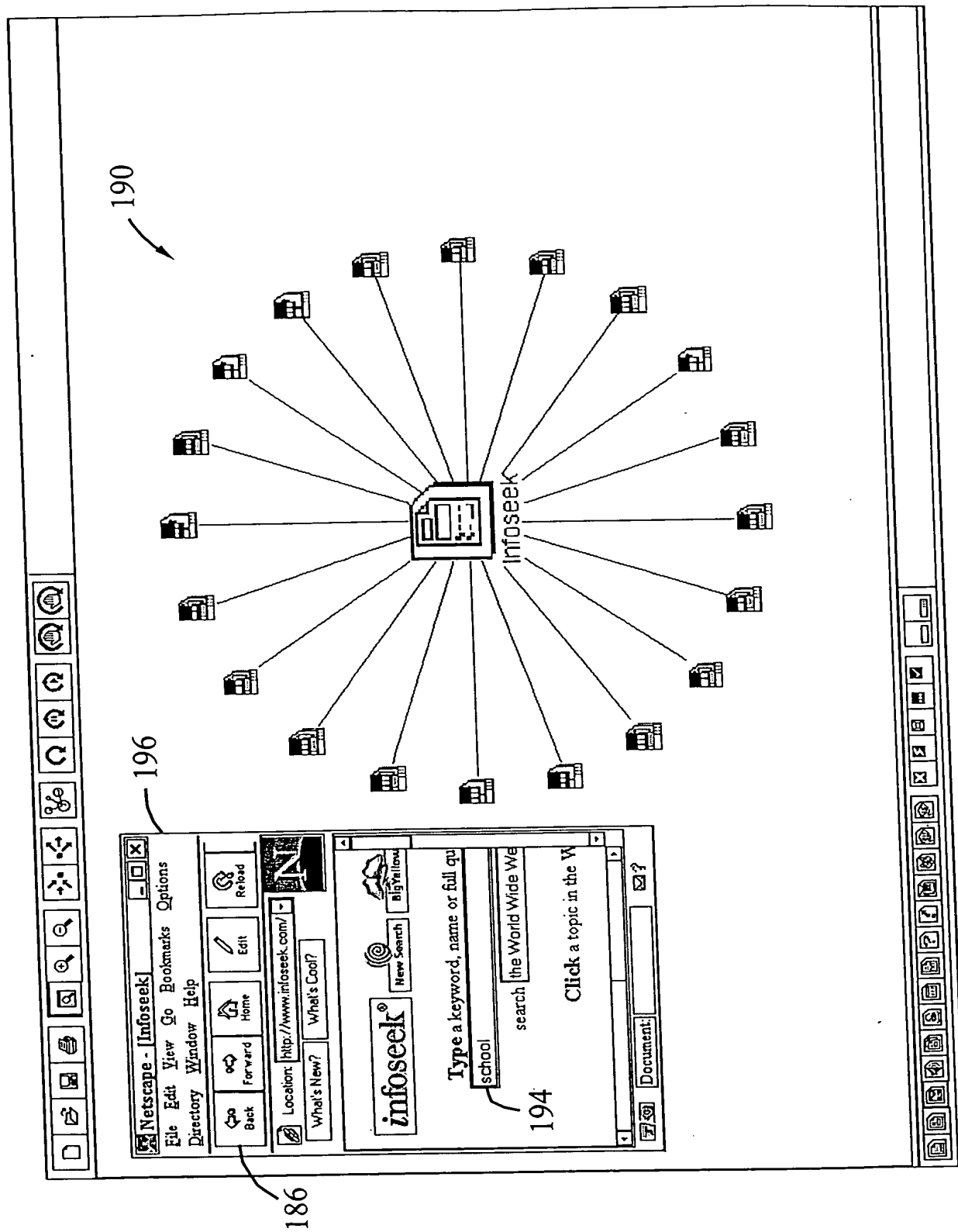


FIG. 14

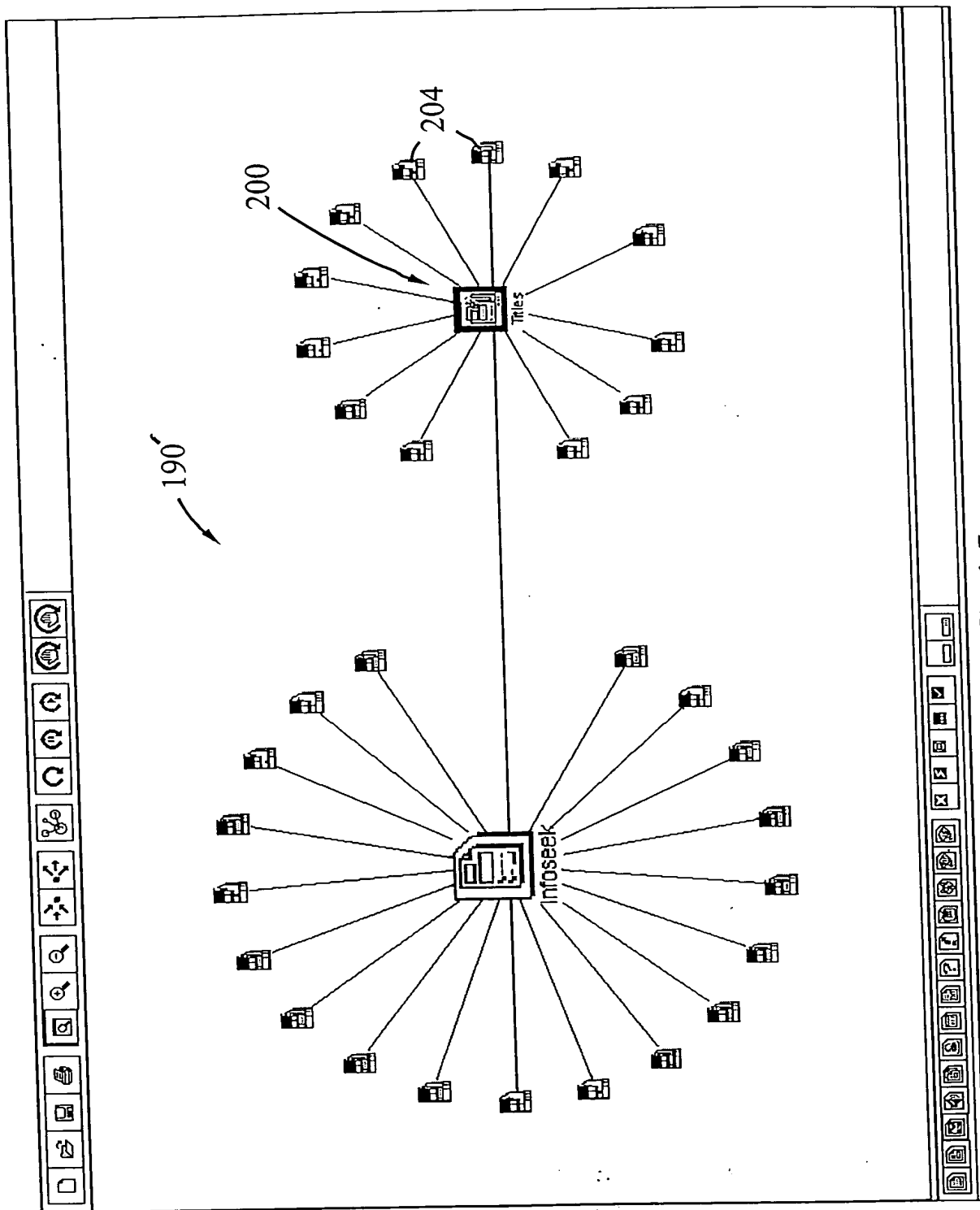


FIG. 15

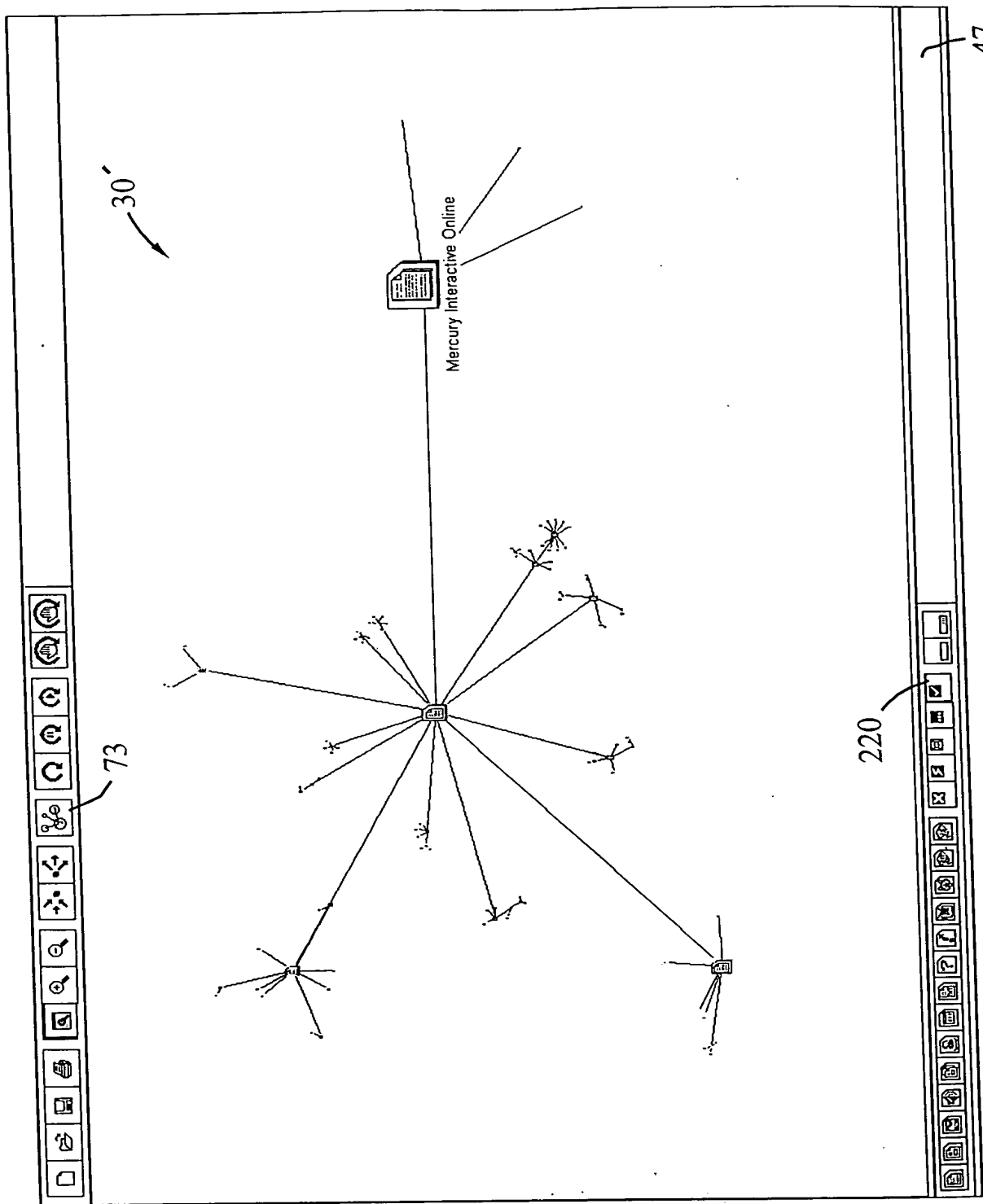


FIG. 16

100%



FIG. 17

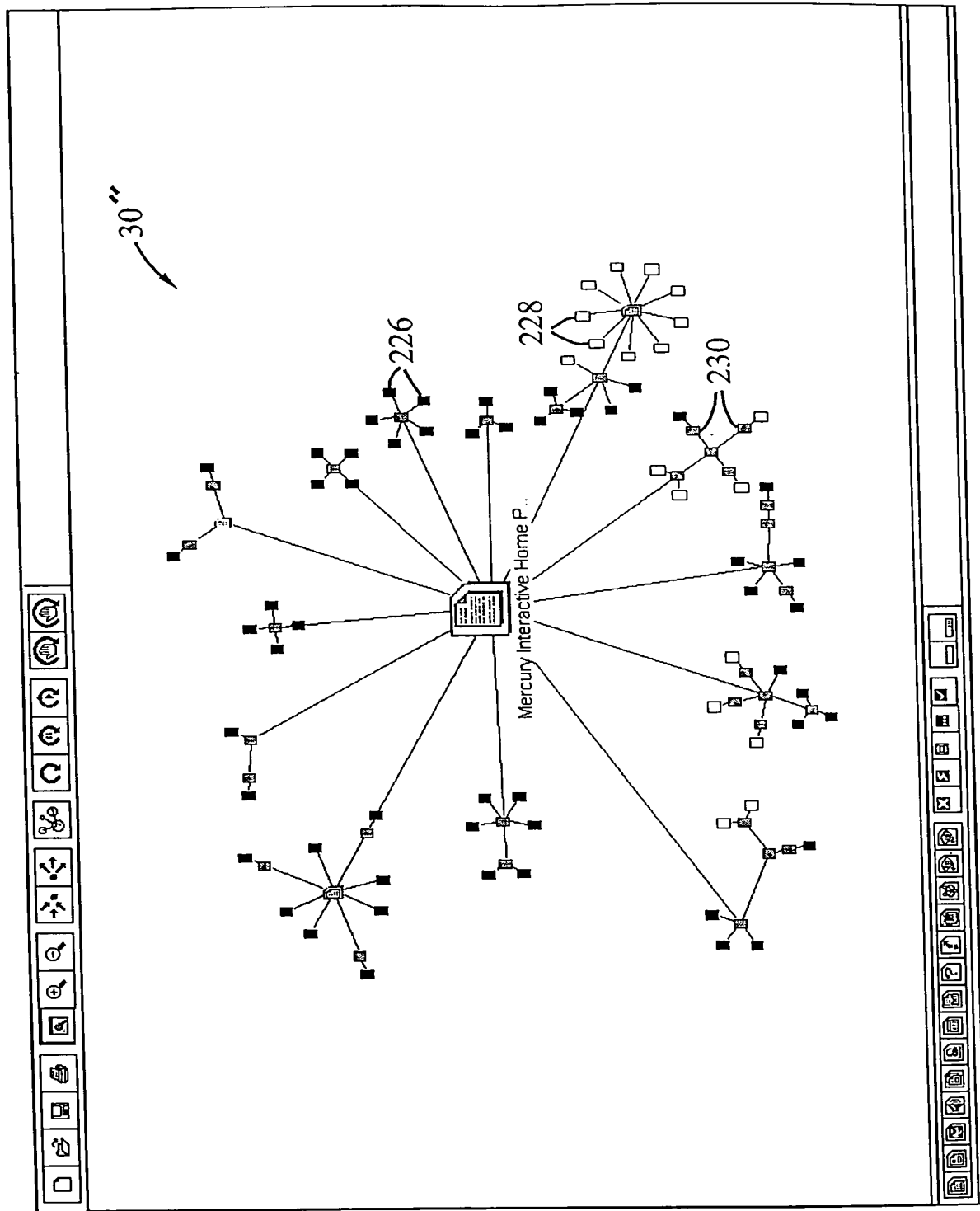


FIG. 18

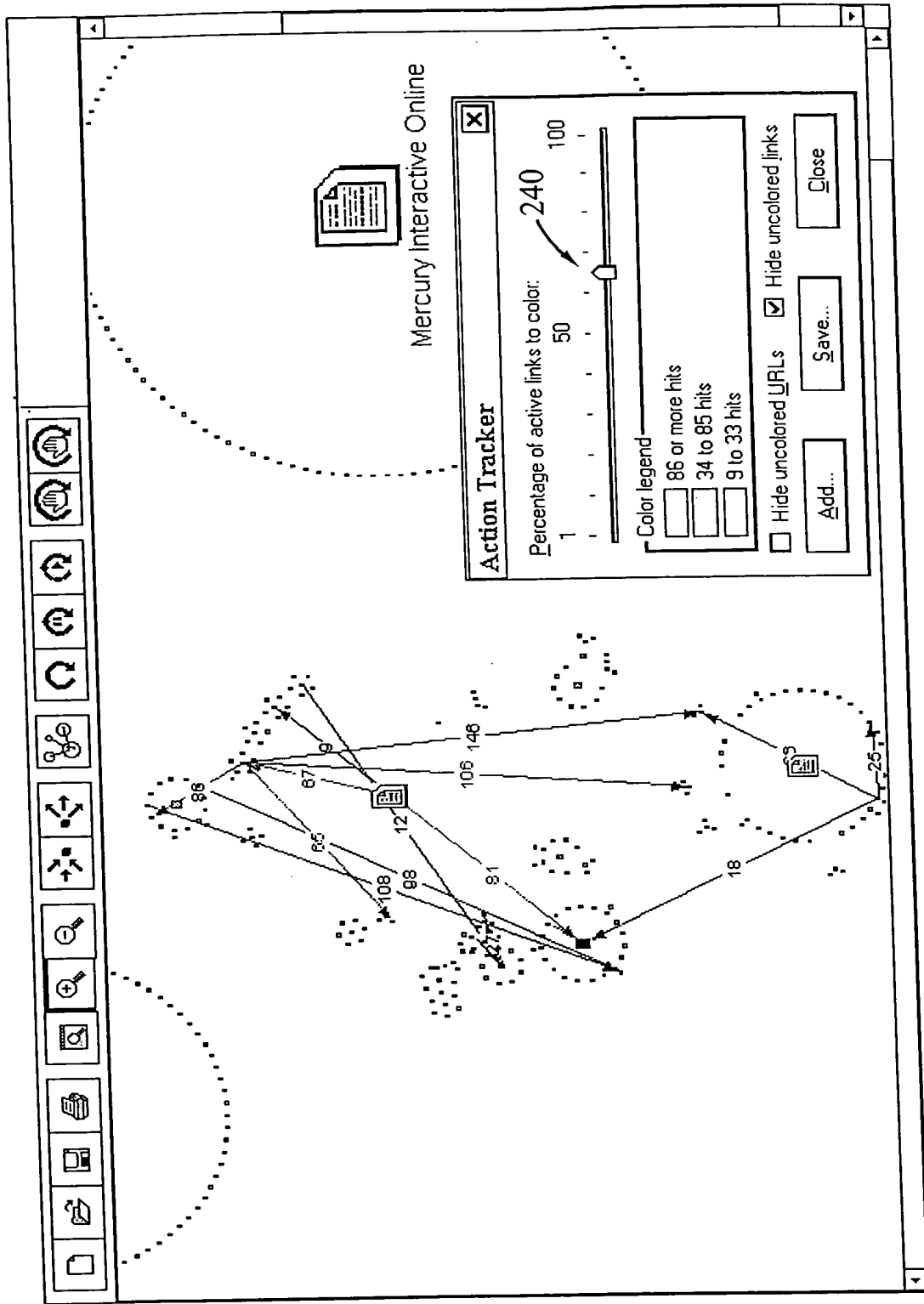


FIG. 19

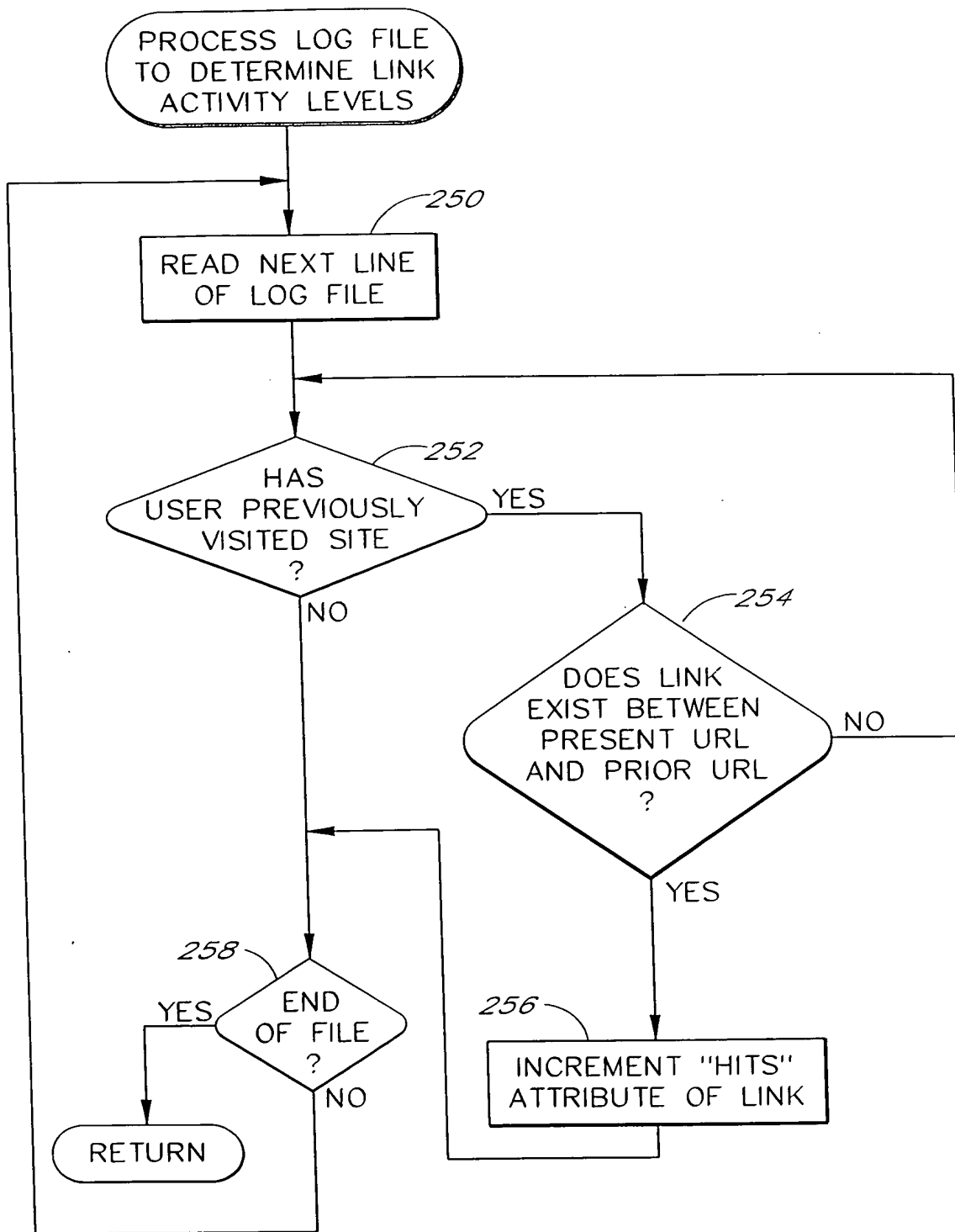


FIG. 20

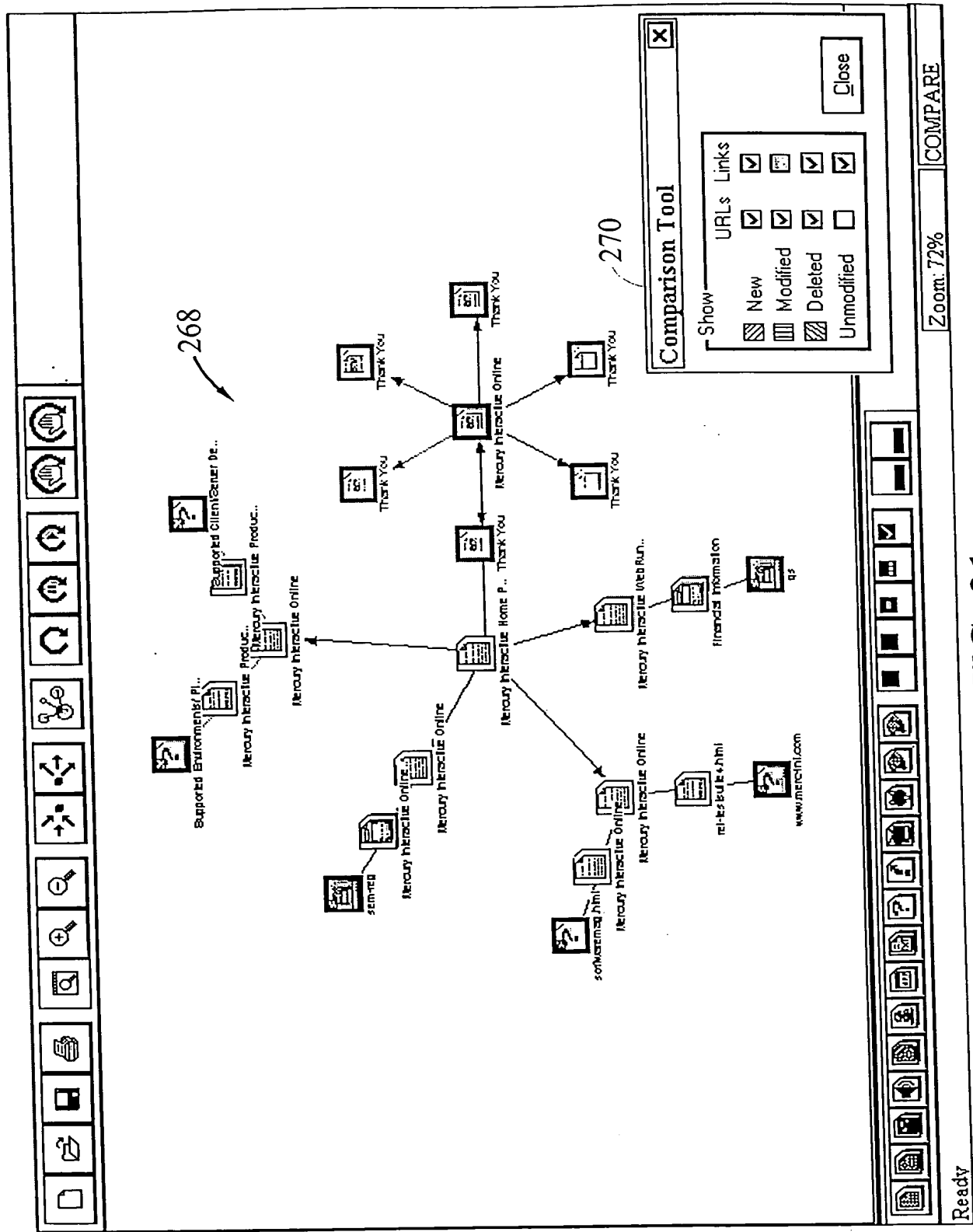


FIG. 21

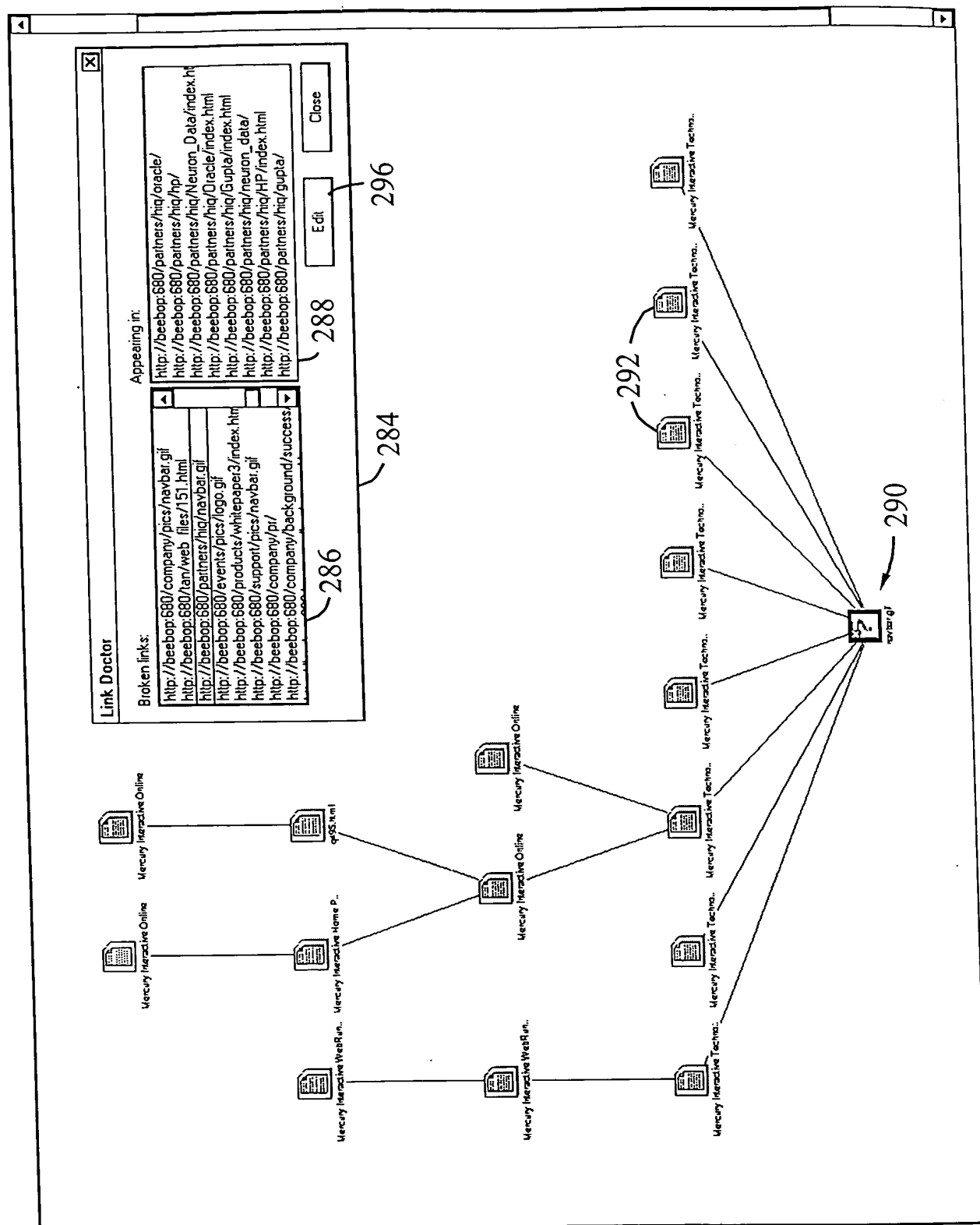


FIG. 22

FIG. 23

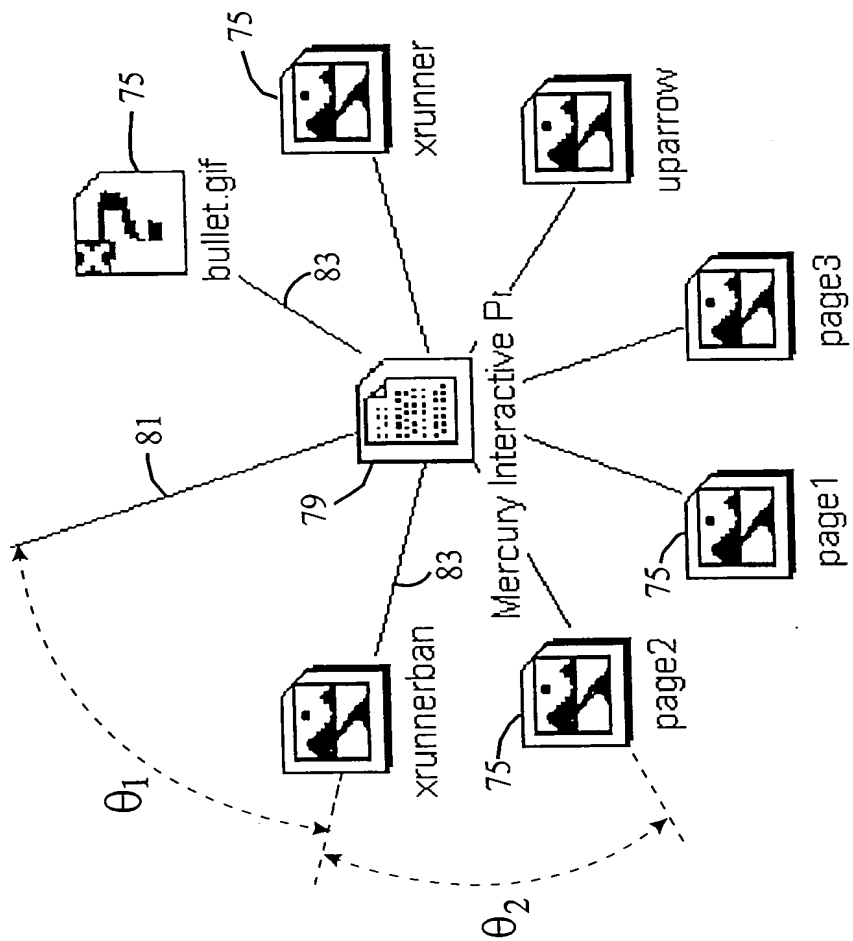
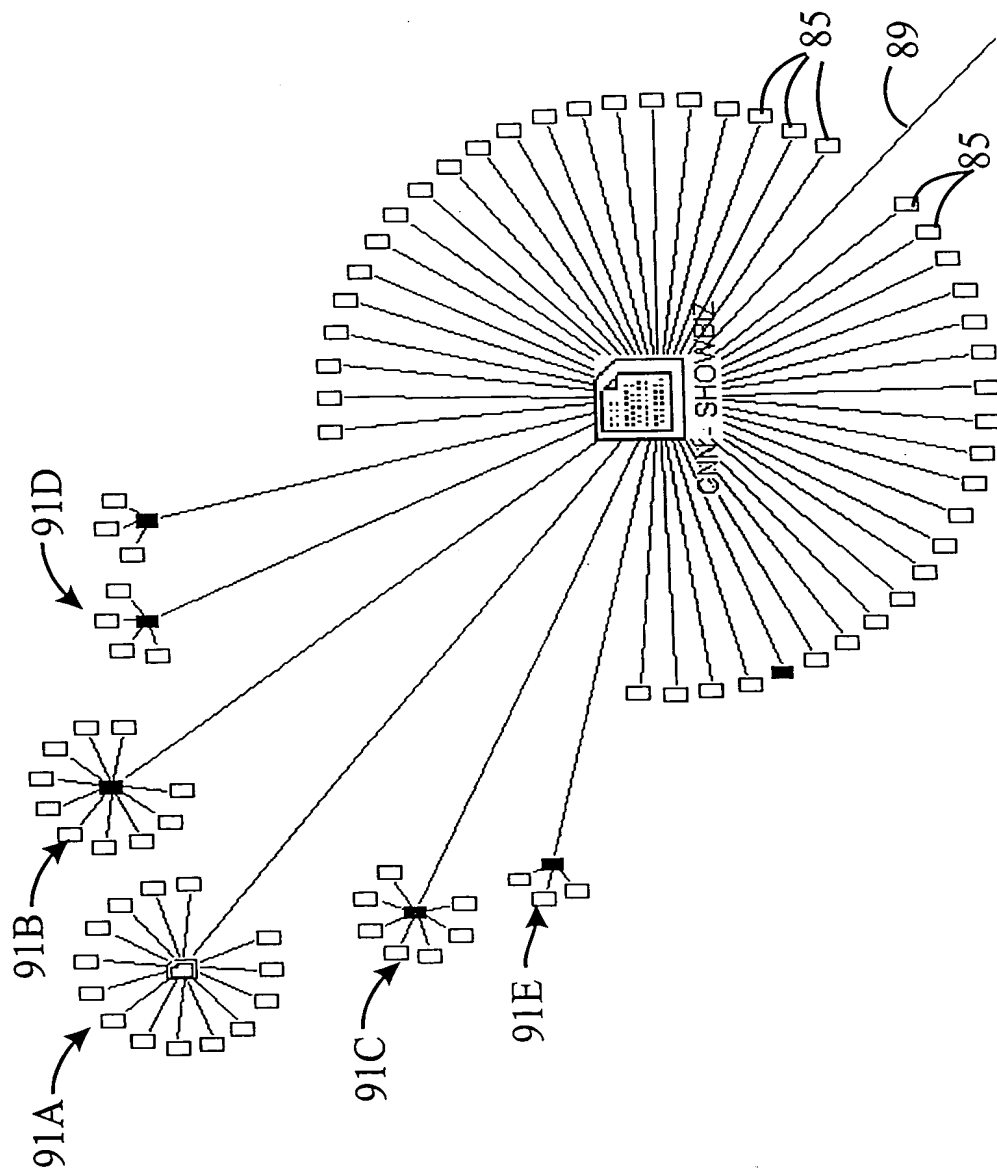


FIG. 24



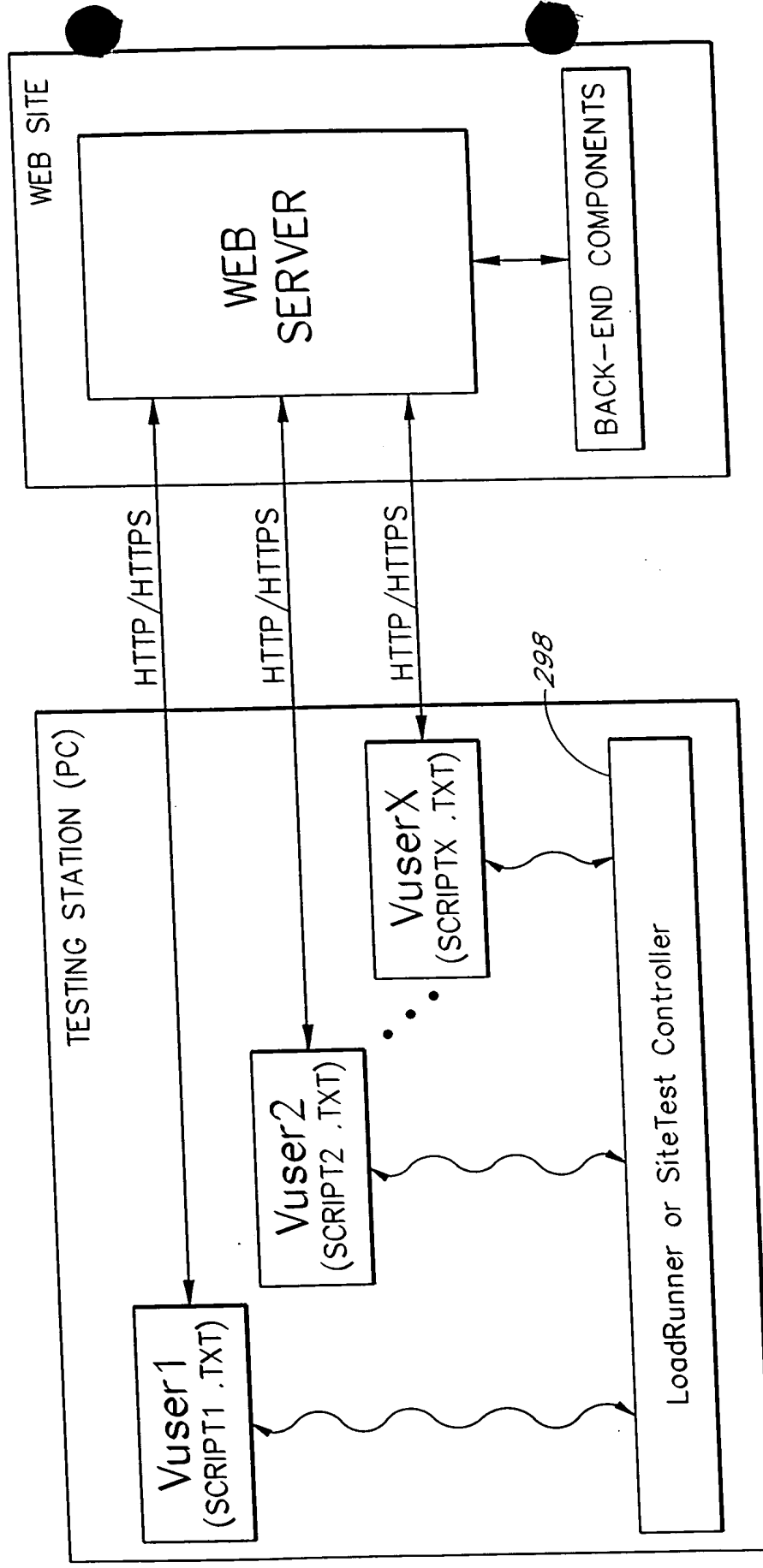


FIG. 25

The screenshot displays the LoadRunner Controller's 'Users(3)' window. The window title is 'Users(3)'. The main area contains a table with the following data:

User	Status	Script	Type	Host	Elapsed
1	Running	WEBSITES.TXT -Loops 2-N WEB	WEB	localhost	00:00:06
2	Running	WEBSITES.TXT -Loops 2-N WEB	WEB	localhost	00:00:05
3	Running	WEBSITES.TXT -Loops 2-N WEB	WEB	localhost	00:00:05

The top toolbar includes icons for file operations (New, Open, Save, Print, etc.), a help icon, and navigation icons. The bottom status bar shows 'Scenario status: Active'.

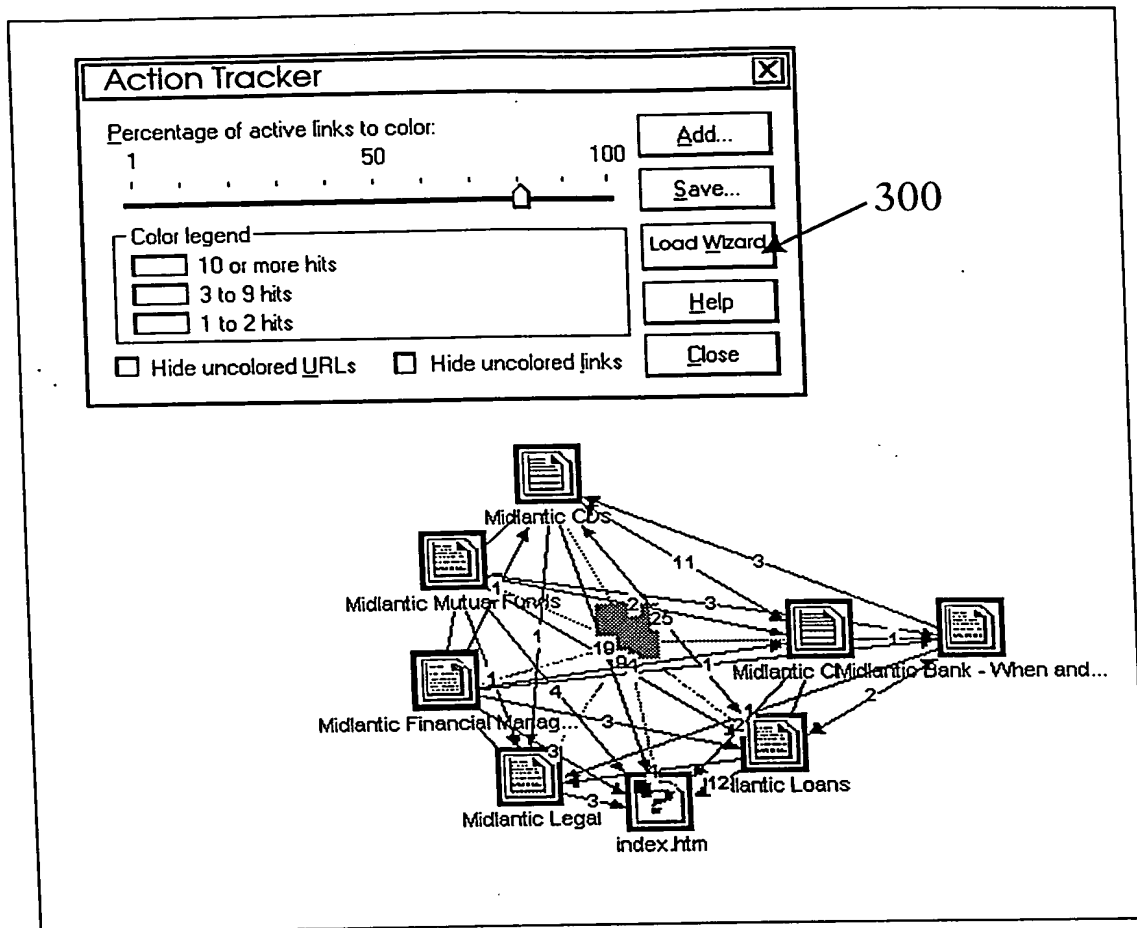


FIG. 27

FIG. 28

310

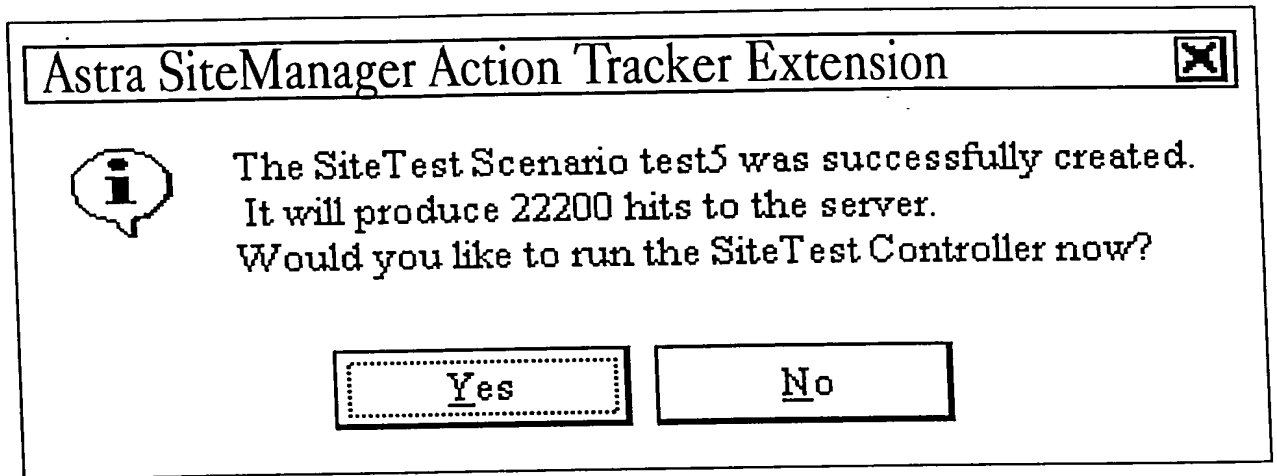


FIG. 29

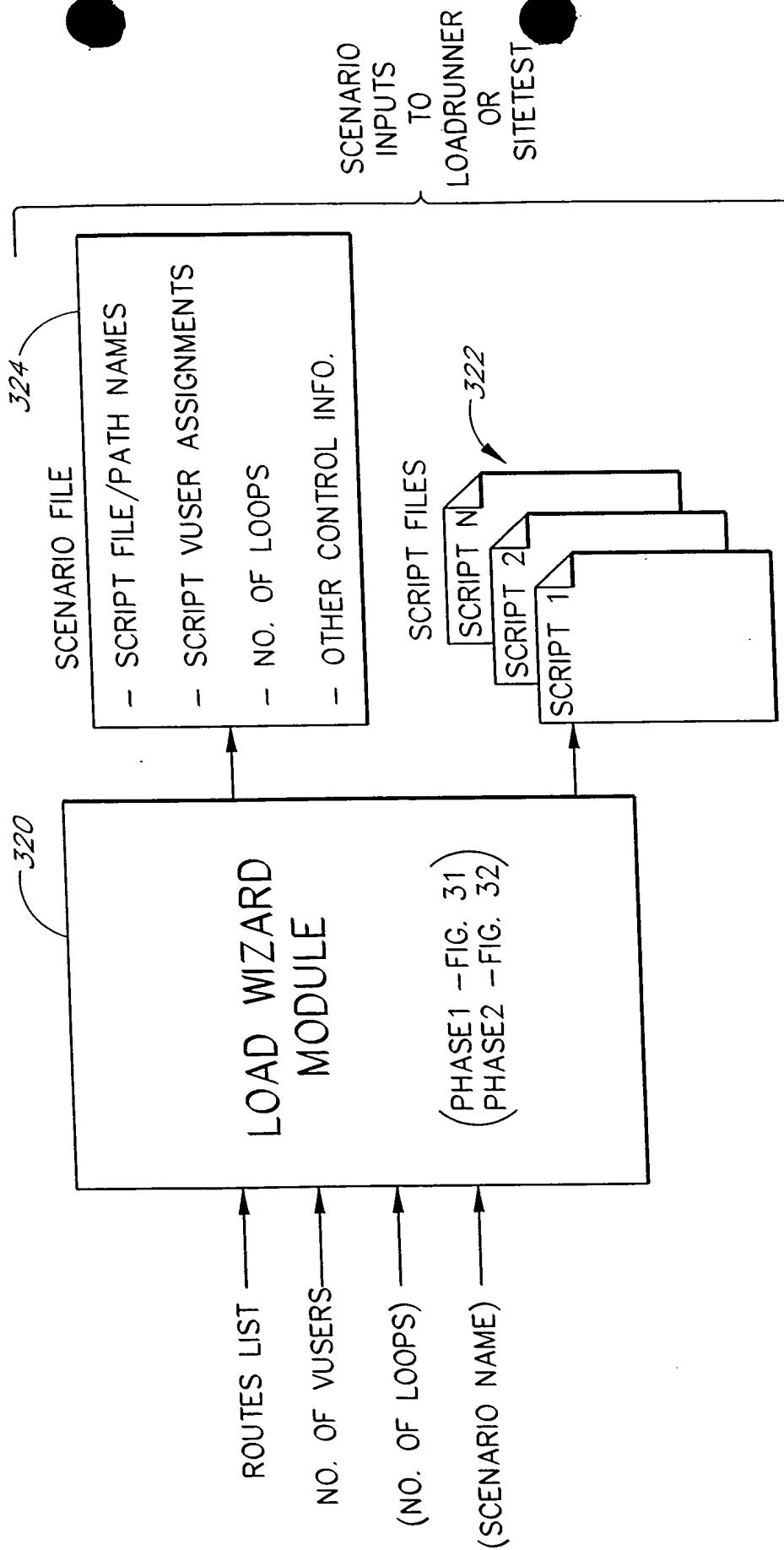


FIG. 30

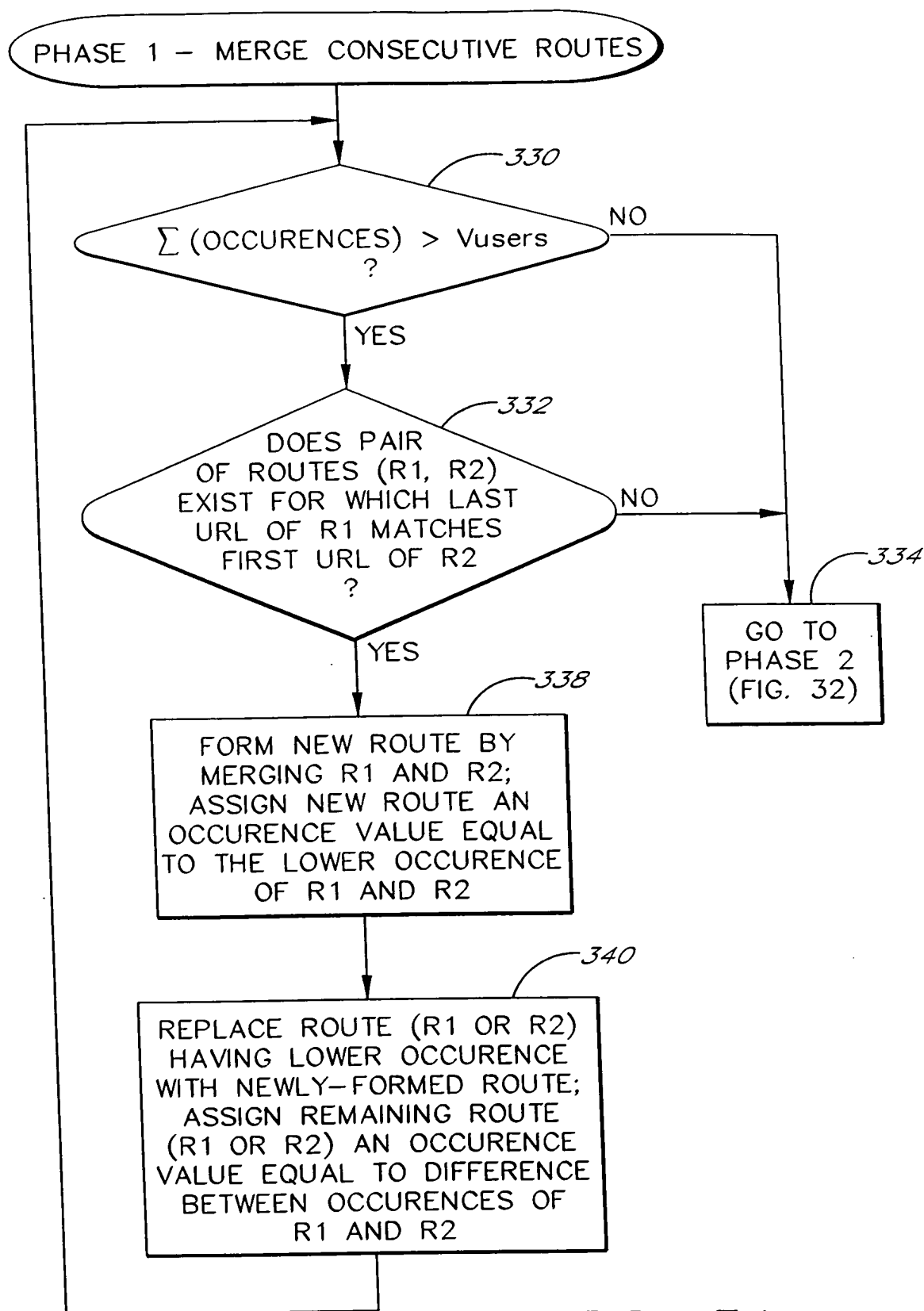


FIG. 31

PHASE 2 - CONDENSE ROUTES LIST INTO
SET OF WEB SCRIPTS

350
SORT ROUTES LIST
ACCORDING TO
OCCURENCE VALUES

352
 $\Sigma(\text{OCCURENCES}) > V_{\text{users}}$
?

354
LOCATE ADJACENT ROUTES FOR
WHICH SUM OF ROUTE LENGTHS
IS SMALLEST, AND CONCATENATE
TO FORM SINGLE ROUTE; ASSIGN
TO NEW ROUTE AN OCCURENCE
VALUE EQUAL TO AVERAGE OF
OCCURENCES OF COMBINED
ROUTES

358
 $\Sigma(\text{OCCURENCES}) > V_{\text{users}}$
?

360
IF MIN. OCCURENCE
OF LIST > 1 , THEN
DIVIDE ALL OCCURENCE
VALUES BY MIN. OCCURENCE

364
ADJUST OCCURENCE
VALUES SUCH
THAT
 $\Sigma(\text{OCCURENCES}) =$
 V_{users}

366
WRITE EACH
ROUTE AS A
SEPARATE SCRIPT
FILE

368
FORM ONE GROUP
FOR EACH ROUTE;
ASSIGN TO EACH
GROUP A NUMBER
OF V_{users} EQUAL
TO ROUTE'S
OCCURENCE VALUE

370
WRITE SCENARIO
FILE

FIG. 32